Fraunhofer Attract – General Information

Duration: 5 years

Financial Funding: max. € 2.5 million

Funding Model: 50% Institute
50% Headquarters

Eligible candidates: PhD or professorship
Fraunhofer Attract

Excellent external scientist (PhD or Professorship) + Creative research idea + Suitable Fraunhofer-Institute = Mutual application

Interested in industry-related research, career and leadership

With potential for application-oriented development

Research idea fits/adds perfectly to the R&D-portfolio of the selected institute

In case of success: €2.5 million funding for 5 years
Application for Fraunhofer Attract

- Identification of Institute
- Contact Head of Institute
- Possibility to establish a new research field
- Joint application to Headquarters
- Interview and Presentation
- Grant

Process

Identification of Institute

Application for Fraunhofer Attract
Time frame for application for Attract

- Development of the proposal by the applicant and the Director of the corresponding Fraunhofer Institute
- Two submission rounds per year
- Proposal consisting of 15 pages (based on the draft proposal)
- Evaluation and approval by the evaluation committee »Fraunhofer Attract«
- Earliest Start: 1 month after decision of evaluation committee

Mutual proposal

Deadline for submission

Decision of evaluation committee based on:
+ proposal
+ interview and presentation of the candidate

Decision-making immediately after the meeting of the evaluation committee

~ 8 weeks

Start of project

Earliest start: 1 month after decision

Project duration: 5 years
Goals of Fraunhofer

- Winning of high potentials in leading function
- Gain of excellence: extraordinary talents focusing on basic research have the opportunity to advance their ideas with Fraunhofer in an application-oriented manner within a context that is close to the market
- Successful establishment of new scientific and applied core competencies and business units
- Successful implementation of the Attract-group into the Fraunhofer model after 5 years of funding: i.e. a budget containing revenues from public and industrial projects of 1/3 each
# Attract-Groups in Fraunhofer-Institutes

## MIKROELEKTRONIKS (since 1996)

<table>
<thead>
<tr>
<th>Institute</th>
<th>Location</th>
<th>Guests</th>
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<tr>
<td>EMFT, Munich</td>
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<td>IIS, Erlangen</td>
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<td>ENAS, Chemnitz</td>
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<td>IISB, Erlangen</td>
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<td>ESK, Munich</td>
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<td>IMS, Duisburg</td>
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<td>FHR, Wachtberg</td>
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<td>IPMS, Dresden</td>
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<td>HHI, Berlin</td>
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<td>ISIT, Itzehoe</td>
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<td>IAF, Freiburg</td>
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<td>IZM, Berlin</td>
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## LIGHT & SURFACES (since 1998)

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<tr>
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<tr>
<td>FEP, Dresden</td>
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<td>IOF, Jena</td>
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<td>ILT, Aachen</td>
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<td>IPM, Freiburg</td>
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<td>IST, Braunschweig</td>
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## MATERIALS AND COMPONENTS (since 1997)

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<tr>
<td>EMI, Freiburg</td>
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<td>ISE, Freiburg</td>
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<td>IAP, Potsdam</td>
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<td>ISI, Karlsruhe</td>
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<td>IBP, Stuttgart</td>
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<td>IWES, Bremerhaven</td>
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<td>ICT, Pfinztal</td>
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<td>IWM, Freiburg, Halle</td>
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<td>IFAM, Bremen, Dresden</td>
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<td>IZFP, Saarbrücken, Dresden</td>
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<td>IKTS, Dresden, Hermsdorf</td>
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<td>LBF, Darmstadt</td>
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<td>ISC, Würzburg</td>
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<td>WKI, Braunschweig</td>
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## COMMUNICATION-TECHNOLOGY (since 2001)

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<tr>
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<tr>
<td>FIT, St. Augustin</td>
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<td>IOSB, Karlsruhe, Ettlingen</td>
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<td>FOKUS, Berlin</td>
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<td>ISST, Dortmund</td>
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<td>IAO, Stuttgart</td>
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<td>ITWM, Kaiserslautern</td>
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<td>IDMT, Ilmenau</td>
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<td>MEVIS, Bremen</td>
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<td>IESE, Kaiserslautern</td>
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<td>SCAI, St. Augustin</td>
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<td>IGD, Darmstadt</td>
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<td>SIT, Darmstadt</td>
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## MANUFACTURING (since 1998)

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<td>IFF, Magdeburg</td>
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<td>IPK, Berlin</td>
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<td>IML, Dortmund</td>
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<td>IPT, Aachen</td>
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<td>IPA, Stuttgart</td>
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<td>IWU, Chemnitz</td>
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## LIFE SCIENCES (since 2000)

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<tr>
<td>IBMT, St. Ingbert</td>
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<td>MEVE, Schmallenberg, Aachen</td>
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<td>IGB, Stuttgart</td>
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<td>ITEM, Hannover</td>
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<td>IVV, Freising</td>
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## DEFENSE- AND SECURITYRESEARCH VVS (since 2002)

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<td>FKIE, Wachtberg</td>
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<td>ICT, Pfinztal</td>
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<td>IOSB, Karlsruhe</td>
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<td>INT, Euskirchen</td>
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Institutes outside: MOEZ, INT, PYCO, IRB, COMEDD

© Fraunhofer
Running »Fraunhofer Attract« grants

1. 02/10, IZFP-D: PD Dr. Thomas Härtling
   High resolution plasmonic spectrometry for structural and biomedical health monitoring - »PlasmoSpec«

2. 04/11 IWM-H: Prof. Dr. Thomas Höche
   Nanoscale Assessment of Innovative Joining Technologies for Microsystems Engineering - »NanoAssesses«

3. 09/11, IPA: Prof. Oliver Röhrle, PhD
   Virtual Orthopedic Lab: Simulation environment for orthopedic research and development - »VOL«

4. 02/12, IUSE: Dr. Stefan Kaluza
   Chemical feedstock and energy storage based on synthesis gas – bridging the gap between fundamental research and industrial application - »Development catalysts«

5. 03/12, IVV: Dr. Simone Toelstede
   Fermentation of plant proteins – development of new food products with high consumer acceptance - »ProFerment«
Running »Fraunhofer Attract« grants

6. 04/12, IWM: Dr. Christoph Eberl  
   »Small Scale Reliability«

7. 09/12, IPA: Dr. Nikolaos Deliolanis  
   Real-time spectroscopic medical imaging - »Optical Diagnostics«

8. 02/13, ISC: Prof. Dr. Doris Heinrich:  
   Cell-based Assays of 3D-bottom-up-nanostructured Surfaces for Regenerative  
   Implants and Scaffolds - »3D-NanoCell«

9. 02/13, IKTS: Dr. Peter Neumeister  
   – Mechanics of Materials for functional ceramics:  
   From microstructur to device behaviour

10. 02/13, IZI: Dr. David M. Smith  
    – DNA-Structured Nanodevices for Therapeutic Delivery and Medical Diagnosis  
    - »DNAstructured Nanodevices«

11. 03/13, IKTS: Dr. Mykola Vinninchenko  
    Innovative ceramic layer systems for molten carbonate fuel cells with extended  
    long-term stability and lifetime - »INNOVELLE«

12. 06/13, IPM: Dr. Fabian Friederich  
    Innovative electronic terahertz systems for industrial applications - »ElekTera«
Running »Fraunhofer Attract« grants

13. 09/13, IME: Dr. Marc F. Schetelig
   »Environment-friendly pest control for the Spotted Wing Drosophila (SWD),
   Drosophila suzukii«

14. 09/13, IVV: Prof. Dr. Jessica Freiherr
   Multimodal sensory integration processes with regards to food, packaging and
   presentation – »Multi-Sense«

15. 09/13, SIT: Prof. Dr. Eric Bodden
   Secure Software Engineering - »SSE«

16. 10/13, IGD: Dr. Philipp Urban:
   »Reproducing Optical Material Properties by 3D Printing«

17. 09/14, ITEM: Prof. Dr. med. Antje Prasse:
   Klinische und translationale Fibroseforschung - »KlaFier«

18. 04/15, IME-MB: Dr. Johannes Felix Buyel
   Fast Applied Screening and Selection Technology for Protein Expression and
   Purification - «FAST-PEP«
Running »Fraunhofer Attract« grants

19. 02/15, MEVIS: Dr. David Porter
   General MR Framework for Research and Industry - «GEMRI«

20. 02/15, IAF: Dr. Agne Zukauskaite
   Development of AlScN layers for the next generation high-frequency filters – «PiTRANS«

21. 06/15, ISE: Dr. Robin J. White
   Sustainable Carbon Supports for Present & Future Hydrogenation Catalysis – «Flex-C-Cat«

22. 10/15, IOF: Dr. Adriana Szeghalmi
   Atomic Layer Deposition for Optics - «ALDO«
Hydrogen storage

Dr. Lars Röntzsch
Fraunhofer Institute for Manufacturing and Advanced Materials IFAM – Powder Metallurgy and Composite Materials in Dresden

- joined Fraunhofer from the Dresden-Rossendorf-Research Center in 2007
- Project: Development of reversible H2-storage systems up to pilot scale for mobile and stationary applications
- Goal: High storage density through nano-structuring and catalytic activation of the chosen material classes like metal hydrides
Visual perception for the man-machine-interface

Prof. Dr. Rainer Stiefelhagen
Fraunhofer Institute for Optronics, System Technologies and Image Exploitation IOSB in Karlsruhe

- joined Fraunhofer from the University of Karlsruhe in 2007
- Shared professorship with Fraunhofer and the University of Karlsruhe
- Project: Development of machine processes for the visual perception of people and for the utilization of multi-modal and aware man-machine-interfaces
- Goal: Aware man-machine-interfaces in “smart rooms”
“Up and down-conversion” in glass ceramics for highly efficient solar cells

PD Dr. Stefan Schweizer
Fraunhofer IWM, Center for Silicon Photovoltaics CSP in Halle

- joined Fraunhofer from the University Paderborn in 2007
- numerous awards, co-owner of 8 patents in the field of optically active glass ceramics and radiography, 92 peer-reviewed papers
- Project: “Up-and down-conversion in glass ceramics for highly efficient solar cells”
- Goal: “Light manipulation” moves the incoming light towards a more suitable frequency range for the solar cell and leads to an increase in overall degree of efficiency
“HPP” – Solutions for the Public Sector

Prof. Dr. Thomas F. Gordon
Prof. Dr. Jörn von Lucke (accompanying)
Fraunhofer Institute for Open Communication Systems FOKUS Berlin

- joined Fraunhofer from IAIS (Institute for Autonomous Intelligent Systems) Bonn in 1995
- Honorary Professorship “for Argumentation Technology” at the Institute Computer Science Univ. Potsdam
- joined Fraunhofer from the German University for Management Sciences Speyer in 2007
- since 2009: Professorship at Zeppelin University Dept. for Public Management and Governance (TICC), Friedrichshafen

- Project: Development of web interfaces for public administration: From guidance to administration portals to service centers and service clusters
- Goal: Evolution of public administration portals to high performance portals of the public domain
Multifunctional bulk building materials

Dipl.-Ing Christof Karlstetter
Fraunhofer Institute for Building Physics IBP in Valley

- joined Fraunhofer from Franz Oberndorfer GmbH & Co. in 2007
- head of R&D at Oberndorfer GmbH & Co.
- Project: Development of a new type of concrete, with higher value and more extensive functionalities
- Goal: Various innovative developments in bulk concrete materials, such as fiber reinforced porous concrete
Precursor-derived ceramics

Dr. Isabel Kinski
Fraunhofer Institute for Ceramic Technologies and Systems IKTS in Dresden

- joined Fraunhofer from the Technical University of Darmstadt in 2007
- Project: Fictionalization through chemical alteration at the molecular level; property engineering through molecular precursors; polymer derived ceramics
- Goal: Development and production of oxide nitride ceramics with tunable properties by molecular precursors
Sensors for biomedical and security applications

Dr. Volker Cimalla
Fraunhofer Institute for Applied Solid State Physics
IAF in Freiburg

- joined Fraunhofer from the TU Ilmenau in 2007
- >200 ISI publications
- Project: Highly sensitive and selective electronic sensors for liquids with integrated light emitters
- Goal: Combination and integration of optoelectronic (light emitter and detector) and electronic (FET) building elements for novel sensor systems for the analysis of liquids in medicinal, environmental and security technologies
“CAPLE” – Context and Attention in personalized learning experiences

Dr. Martin Wolpers
Fraunhofer Institute for Applied Information Technology FIT in Bonn/Birlinghoven

- joined Fraunhofer from Katholieke Universiteit Leuven (K.U.Leuven), Belgium in 2007
- Coordinator of large European projects like “ROLE” (FP7 IP) and “Mace” (Metadata for Architectural Contents in Europe)
- Project: Utilizing the observations about and context of the learner to facilitate application and task independent support of individualized learning experiences
- Goal: Contextualized attention metadata (CAM) to enable personalized learning experiences
“UNIFISH” – Development of a universal high-throughput screening system with zebrafish

Dr. Martina Fenske
Fraunhofer Institute for Molecular Biology and Applied Ecology IME in Aachen and Schmallenberg

- joined Fraunhofer from the University of Exeter and Syngenta Jealott's Hill Int. Research Centre, UK in 2008
- Post-Doctoral Research Fellow at Syngenta Ltd., Jealott’s Hill International Research Centre; Marie-Curie Post-Doctoral Research Fellow at University of Exeter, UK
- Project: Development of a universally applicable high-throughput screening assay platform with zebrafish embryos
- Goal: Establish a powerful and versatile screening platform as an alternative to animal experiments
“STREAM” – Statistical Relational Activity Mining

Dr. Kristian Kersting
Fraunhofer Institute for Intelligent Analysis and Information Systems IAIS in Birlinghoven

- joined Fraunhofer from the Massachusetts Institute of Technology MIT in 2008
- numerous awards and research visits at renowned research groups in the field of artificial intelligence and machine learning
- Project: Statistical relational learning as the basis for the next generation of Artificial Intelligence
- Goal: STREAM’s goal is to develop formalisms, models, and algorithms for effective and robust statistical relational activity mining for significant real-life applications
“Smart μOptics” – Smart Materials for Tunable Micro-Optics based on silicon technology

Dr. Florenta Costache
Fraunhofer Institute for Photonic Microsystems
IMPS in Dresden

- joined Fraunhofer from the University of Cottbus in 2008
- best PhD in Physics at the University of Cottbus in 2007
- Project: Design and development of tunable micro-optical components by the implementation of electro-active polymers in Si-based micro-electro-mechanical systems (MEMS).
- Goal: Demonstration of the potential of a “Novel Technology Platform” by specific applications of micro-optical components
Distributed Usage Control

Prof. Dr. Alexander Pretschner

Fraunhofer Institute for Experimental Software Engineering IESE in Kaiserslautern

Fraunhofer Institute for Optronics, Systems Technologies and Image Exploitation IOSB in Karlsruhe

- joined Fraunhofer from ETH Zürich in 2008
- Professor at the Technical University in Munich, Institute for computer science
- Project: Technological and methodological framework for the specification, analysis and enforcement of usage control
- Goal: Implementation of control mechanisms and tools for the development of relevant usage control systems

"With the distribution of data the original owner usually looses control over the data - this problem is the basis of the project 'Distributed Usage Control'"
Direct Laser Interference Patterning

Dr. Andrès Lasagni
Fraunhofer Institute for Material and Beam Technology IWS in Dresden

- joined Fraunhofer from Georgia Institute of Technology, USA in 2008
- Humboldt-Fellow at Georgia Tech, several cover pages in “Advanced Engineering Materials”
- Project:
  Direct Laser Interference Patterning
- Goal:
  Functionalization of coatings and surfaces as well as the rational design of functional two- and three-dimensional periodic architectures with applications in different technological areas such as tribology (wear and friction) and biotechnology
“IMAGINE” – Innovative Material Design for Impacted Compound Structures – An inverse multi-scale methodology

Dr. Nik Petrinic
Fraunhofer Institute for High-Speed-Dynamics Ernst-Mach-Institute EMI in Freiburg

- joined Fraunhofer from University of Oxford, UK
- Project:
  Development of an integrated experimental numerical concurrent multi-scale predictive modelling methodology for design of innovative material architectures
- Goal:
  Improved prediction of inter-fibre-failure including delamination in composites under predominantly compressive loading for aerospace sector related impact engineering applications
Novel plasmonic structures as nano-optical components in laser technology

Prof. Dr. Thomas Taubner
Fraunhofer Institute for Laser Technology ILT in Aachen

- joined Fraunhofer from Stanford University in 2009
- Junior Professor at RWTH Aachen
- Project: Plasmonic structures as nano-optical components, laser and laser-components for nanophotonics and nanophotonic applications
- Goal: Exploration of novel plasmonic structures as nano-optical components in laser technology
Broadband spectroscopy and photothermal techniques for analysis of liquids and defect analysis of optical materials

Prof. Dr. Frank Kühnemann
Fraunhofer Institute for Physical Measurement Techniques IPM in Freiburg

- joined Fraunhofer from German University of Cairo
- Project: Broadband spectroscopy and photothermal techniques for analysis of liquids and defect analysis of optical materials
- Goal: New optical measurement technologies for the analysis of liquids; development of customized measuring instruments for the optimization of the manufacturing process of optical materials
Architectures for Auditable Business Process Execution – “APEX”

Prof. Dr. Jan Jürjens
Fraunhofer Institute for Software und Systems Engineering ISST in Dortmund

- joined Fraunhofer from Microsoft Research (Cambridge) and Robinson College (University of Cambridge) in 2009
- Project: IT-architectures for auditable business-processes
- Goal: IT-concepts for the insurance business, e.g. for compliance in the integration and implementation of governmental regulations – like Solvency II – in their business processes
PD Dr. Christoph van Treeck
Fraunhofer Institute for Building Physics IBP in Valley

- joined Fraunhofer from Technical University of Munich in 2009

- Project:
  Development and validation of complex numerical simulation of indoor climate and its impact on human beings under inhomogeneous and non-stationary conditions

- Goal:
  A parameterized multi-segment-model “made by Fraunhofer”
Development of bio-inspired cardiovascular regeneration technologies

Dr. Katja Schenke-Layland
Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB in Stuttgart

- joined Fraunhofer from University of California UCLA in 2010
- Project: Development of sustainable myocardial therapies for regenerative medicine
- Goal: Novel hybrid carrier structure and progenitor-cells for new regenerative therapies for the myocardial muscle
High resolution plasmonic spectrometry for structural and biomedical health monitoring

PD Dr. Thomas Härtling
Fraunhofer Institute for Non-destructive Testing
IZFP in Dresden

- joined Fraunhofer from Technical University Dresden
- Project: PlasmoSpec – high resolution plasmonic spectrometry for structural and biomedical health monitoring
- Goal: Novel compact sensor-detector systems, which as a core element feature extremely small and efficient plasmonic spectrometers
“NanoAssess” – Nanoscale Assessment of Innovative Joining Technologies for Microsystems Engineering

Prof. Dr. Thomas Höche
Fraunhofer Institute for Mechanics of Materials IWM in Halle

- joined Fraunhofer from Leibniz Institute of Surface Modification (Leipzig)/3D-Micromac AG (Chemnitz) in 2010
- Project: evaluation and assessment of innovative joining technologies for microsystems technology on glassy/oxidic surfaces taking into account process quality and reliability risks, assessment of reliabilities with aid of nanoanalytics
- Goal: validation of joining technologies suitable for microsystems engineering meeting high requirements concerning reliability; assessment of new joining methods
“VOL“– Virtual Orthopedic Lab
Simulation environment for orthopedic research and development

Prof. Oliver Röhrle, Ph.D.
Fraunhofer Institute for Manufacturing Engineering and Automation IPA in Stuttgart

- joined Fraunhofer from University of Stuttgart
- Junior-Professor at the University of Stuttgart
- Project:
  Virtual Engineering Environment for the development and testing of prostheses and implants
- Goal:
  Efficient workflow processes for the software-based development of implants and prostheses: minimization in the use of samples through test simulations, entailing an optimization of the construction
“OLITH” – OLED Microdisplay Fabrication by Orthogonal Photolithography

Dr. Alexander Zakhidov
Fraunhofer Institute for Photonic Microsystems IPMS in Dresden

- Joined Fraunhofer through an Alexander von Humboldt-scholarship from Technical University of Dresden
- Several PostDoc years at Cornell University
- Project: Orthogonal Photolithography techniques for the manufacturing of organic light emitting diodes (OLEDs)
- Goal: Successful manufacturing process for OLED displays with a long operational life span together with a high level of reliability ensured by the application of photolithography techniques
»Catalyst Design« – Chemical feedstock and energy storage based on synthesis gas

Dr. Stefan Kaluza
Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT in Oberhausen

- Joined Fraunhofer from the Laboratory of Industrial Chemistry, Ruhr-University Bochum 2012
- Project: Development and upscaling of heterogeneous catalysts, extensive characterization of the materials, as well as testing and application of the systems in industrial-relevant processes
- Goal: Transfer of structure/performance relationships and concepts to industrial feasible systems for large-scale applications
“ProFerment“ – Fermentation of plant proteins – development of new food products with high consumer acceptance

Dr. Simone Toelstede
Fraunhofer Institute for Process Engineering and Packages IVV in Freising

- Joined Fraunhofer from industry (RAPS GmbH & Co.KG in 2012)
- Project: Development of new food products with high consumer acceptance based on fermented plant proteins
- Goal: New plant-based food products with high sensory quality; extension of the product portfolio for vegetarians
Small Scale Reliability

Dr. Christoph Eberl
Fraunhofer Institute for Mechanics of Materials, Freiburg

- joined Fraunhofer in 2012
- Project: Assessment of mechanical properties and reliability of small scale samples as well as technological advancement of experimental micro mechanics.

- Aim: Experimental assessment of micro mechanical properties and reliability of small scale materials
Real-time spectroscopic medical imaging
Optical Diagnostics

Dr. Nikolaos C. Deliolanis
Fraunhofer-Institute for Manufacturing Engineering and Automation IPA Stuttgart and PAMB Mannheim

- Joined Fraunhofer from Helmholtz-Zentrum and TU München in 2012
- Post-Doctoral Fellow in Massachusetts General Hospital – Harvard Medical School, IEF Marie Curie Postdoctoral Research Fellow
- Project: Development of real-time multispectral imaging methods and systems
- Aim: Transfer of spectroscopic imaging technologies and know-how in the field of medical imaging applications in order to improve the outcome of medical practice.
Cell-based Assays of 3D-bottom-up-nanostructured Surfaces for Regenerative Implants and Scaffolds

Dr. Doris Heinrich
Fraunhofer-Institute for Silicate Research ISC in Würzburg, Germany

- Joined Fraunhofer from LMU in 2013
- Project:
  Investigating biophysical interactions between cellular systems and surfaces of novel nano-structured materials to generate cell-type specific standard assays
- Aim:
  Development of active, intelligent implants for use in human bodies and design of 3D-scaffolds for tissue engineering
Mechanics of Materials for functional ceramics: From microstructure to device behaviour

Dr. Peter Neumeister
Fraunhofer Institute for Ceramic Technologies and Systems IKTS in Dresden

- Joined Fraunhofer from TU Dresden in 2013
- Project: Investigation and systematic adjusting of electromechanical interactions inside the structure of functional ceramics as well as functional systems
- Aim: Developing new functional materials and systems for ultrasonic, high energy and adaptive systems applications
DNA-Structured Nanodevices for Therapeutic Delivery and Medical Diagnosis

Dr. David M. Smith
Fraunhofer Institute for Cell Therapy and Immunology IZI, Leipzig

- Joined to Fraunhofer from LMU in 2013
- Project: The development of nanometer-scale diagnostic, therapeutic and biological tools constructed by methods as DNA self-assembly and other forms of programmed molecular assembly.
- Goal: Construction of drug carrier systems, modular components for nanostructured biosensors, functional constructs for cell targeting/recognition and specific immunomodulators.
INNOVELLE – Innovative ceramic layer systems for molten carbonate fuel cells with extended long-term stability and lifetime

Dr. Mykola Vinnichenko
Fraunhofer Institute for Ceramic Technologies and Systems IKTS in Dresden

- Joined Fraunhofer from Helmholtz-Zentrum Dresden-Rossendorf in 2013
- Project: investigation of the degradation processes in molten carbonate fuel cells (MCFC) and development of innovative ceramic materials for MCFC-components
- Aim: extending the MCFC-lifetime from present 5 to more than 7 years by controllably reducing the components solubility and the particle growth in the molten carbonates
“MultiSense” - Multimodal sensory integration processes with regards to food, packaging and presentation

Prof. Dr. Jessica Freiherr
Fraunhofer Institute for Process Engineering and Packaging IVV in Freising

- Joined Fraunhofer from RWTH Aachen University in 2013
- Assistant professor at RWTH Aachen University
- Project: Multidimensional sensory analysis of food and characterisation of related human responses
- Aim: To facilitate and strengthen an holistic characterisation of sensory parameters during food evaluation and product development
»ElekTera« – Innovative electronic terahertz systems for industrial applications

Dr. Fabian Friederich
Fraunhofer Institute for Physical Measurement Techniques IPM in Freiburg

- Joined Fraunhofer from the German Aerospace Center in 2013
- Project: Development of electronic terahertz system modules and integration of innovative technologies and methods for terahertz measurement techniques
- Aim: Realization of custom-designed THz-systems for industrial applications
Environment-friendly pest control of the Spotted Wing Drosophila (SWD), Drosophila suzukii

Dr. Marc F. Schetelig
Fraunhofer Institute for Molecular Biology and Applied Ecology in Aachen

- Joined Fraunhofer from the United States Department of Agriculture in 2013
- Consultant for international organisations in the agricultural sector; Head of an Emmy-Noether research group
- Project: Development of environment-friendly pest control systems to combat the invasive Spotted Wing Drosophila
- Aim: Control of highly invasive pests for the protection of biodiversity and the agricultural sector in Germany and Europe
Reproducing Optical Material Properties by 3D Printing

Dr. Philipp Urban
Fraunhofer Institute for Computer Graphics Research in Darmstadt

- Joined Fraunhofer from TU Darmstadt in 2013
- Project: Developing models, algorithms, and software for the perceptually optimal reproduction of 3D-objects with annotated optical material properties by multi-material 3D printing.
- Aim: A 3D-copier allowing for the reproduction of an object’s visual appearance (color, texture, gloss, and translucency) in addition to its geometry.
Secure Software Engineering

Prof. Dr. Eric Bodden
Fraunhofer Institute for Secure Information Technology SIT

- Joined Fraunhofer from Technische Universität Darmstadt in 2013, through a Cooperative Professorship
- Project: Secure Software Engineering
- Aim: development of novel automated code-analysis techniques for discovering security vulnerabilities in large software systems
General MR Framework for Research and Industry (GEMRI)

Dr. David Porter
Fraunhofer Institute for Medical Image Computing in Bremen

- Joined Fraunhofer from Siemens Healthcare in 2014
- Project: General MR Framework for Research and Industry (GEMRI)
- Aim: The development of novel techniques in clinical magnetic resonance imaging using a dedicated software development environment
FAST-PEP

Dr. Johannes Felix Buyel
Fraunhofer Institute for Molecular Biology and Applied Ecology in Aachen

- Joined to Fraunhofer in April 2015
- Project: FAST-PEP → Fast Applied Screening and Selection Technology for Protein Expression and Purification
- Aim: Streamline product and process development to reduce research and production costs
- The rational and model-guided synthesis of production processes for biopharmaceutical proteins will help to reduce the costs of healthcare systems and thus ensure a sustainable supply with high quality medicines
PiTRANS – Development of AlScN layers for the next generation high-frequency filters

Dr. Agne Zukauskaite
Fraunhofer Institute for Applied Solid State Physics IAF in Freiburg

- Joined Fraunhofer from Linköping University, Sweden in 2015
- Project: To design, optimize, and produce piezo-transducers, and to establish a technology platform based on AlScN and other compounds for the next generation micro-electro-mechanical systems (MEMS) operating in the 0.7-3 GHz frequency range
- Aim: more efficient, smaller, and cheaper piezoelectric components for future telecommunication industry
Recruiting program Fraunhofer Attract

How to contact Fraunhofer Attract?

You work on ideas and technologies which you would like to advance in a research environment close to industry?

Please find further information at:


or please contact directly
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